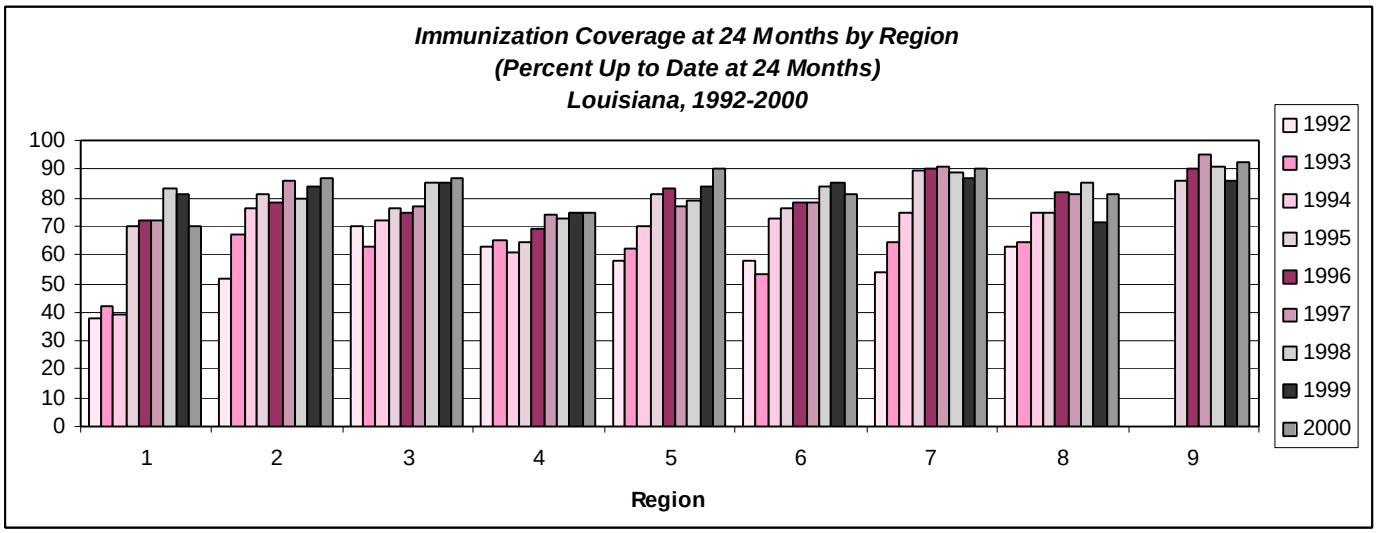
III. HEALTH ASSESSMENT PROGRAMS

A. IMMUNIZATION COVERAGE

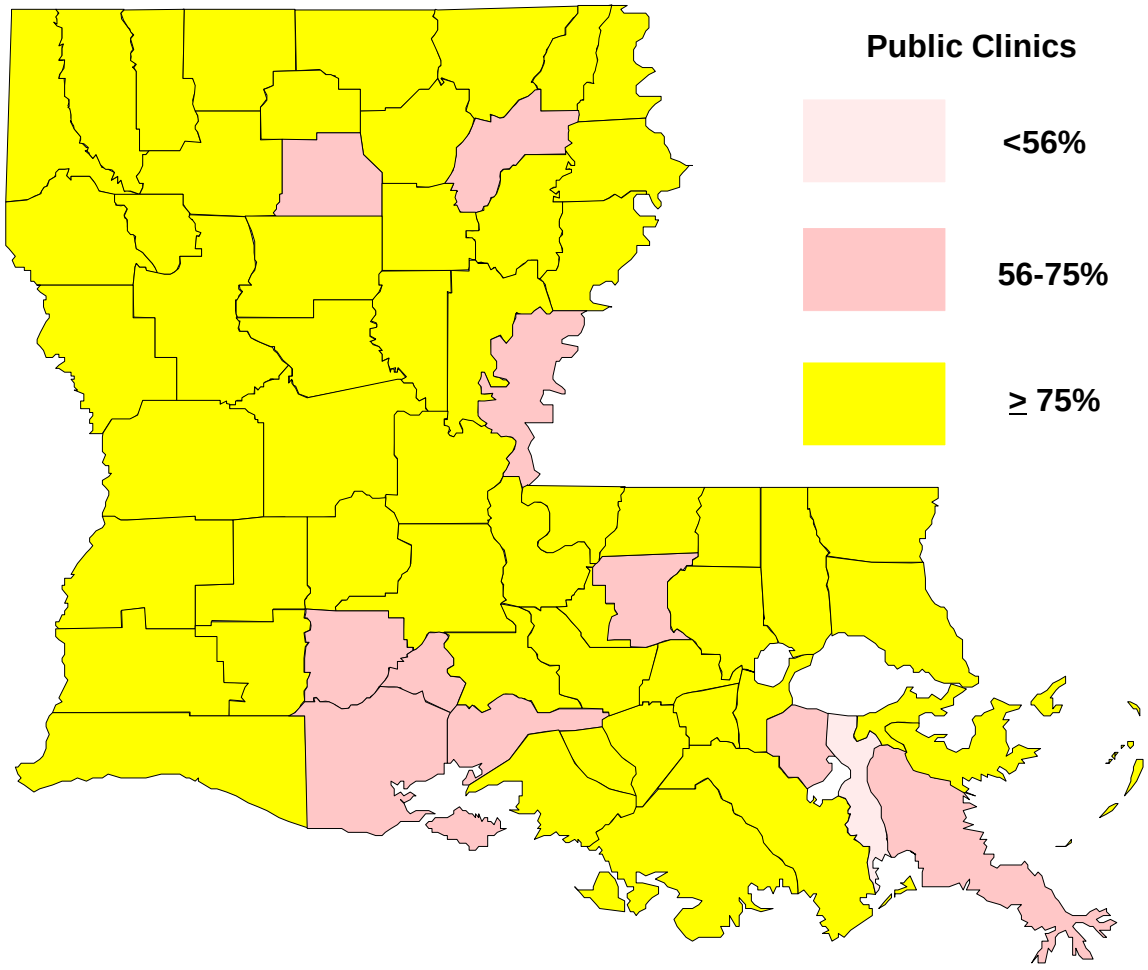
The IMMUNIZATION PROGRAM of the OFFICE OF PUBLIC HEALTH conducts periodic assessments to determine the immunization coverage rates throughout the state. As the graph below displays, rates of coverage have been steadily increasing since 1992, though there have been year to year variations.



Source: Louisiana Office of Public Health, Immunization Program

The map on the following page displays the percent of immunization coverage at 24 months of age among those served in public clinics. Jefferson parish has the lowest immunization coverage rate in the state (see following table).

Percent of Immunization Coverage at 24 Months of Age Among Children Served in Public Clinics Louisiana, 2000



Source: Louisiana Office of Public Health, Immunization Program

Immunizations: Percent Up-To-Date at Age 24 Months Louisiana, 2000-2001*	
Clinic	***%UTD 2000-2001 Results***
Region I	
Orleans-Edna Pilsbury	83.0
Jefferson-Grand Isle	61.0
Orleans-Mandeville Detiege	95.0
Orleans-Mary Buck	92.0
Orleans-Katherine Benson	93.0
Orleans-Helen Levy	90.0
Orleans-St. Bernard Gentilly	75.0
Orleans-Ida Hymel	62.0
St. Bernard	90.0
Jefferson-Marrero	53.0
Plaquemines	62.0
Jefferson-Metairie	51.0
Region II	
Ascension-Gonzales	96.0
Ascension-St. Amant	96.0
Ascension-Donaldsonville	94.0
West Baton Rouge	94.0
West Feliciana	92.0
Iberville	95.0
East Feliciana-Clinton	88.0
Pointe Coupee	84.0
E. Baton Rouge	78.0
E. Baton Rouge-Baker	55.0
Region III	
St. John-Edgard	100.0
St. James-Vacherie	99.0
St. James-Lutcher	99.0
Lafourche-Galliano	96.0
Lafourche-Thibodaux	100.0
Terrebonne	87.0
St. Mary-Franklin	84.0
St. Mary-Morgan City	97.0
St. John-Reserve	84.0
Lafourche-Raceland	88.0
Assumption	89.0
St. Charles	71.0
Region IV	
Evangeline-Mamou	94.0
Evangeline-Ville Platte	97.0
St. Landry-Sunset	95.0
St. Landry-Melville	91.0
St. Landry-Eunice	97.0
St. Martin-St. Martinville	92.0
St. Landry-Opelousas	83.0
Vermillion-Gueydan	45.0
Acadia-Iota	90.0
St. Martin-Cecilia	95.0
Acadia Crowley	84.0

*Up-to-date includes 4 DTAP, 3 OPV or IPV, and 1 MMR

Immunizations: Percent Up-To-Date at Age 24 Months* Louisiana, 2000-2001	
Clinic	**%UTD 2000-2001 Results**
Region IV (continued)	
Vermillion-Erath	62.0
Acadia-Church Point	65.0
Vermillion-Abbeville	76.0
St. Martin-Breaux Bridge	89.0
Acadia-Rayne	63.0
Lafayette	84.0
Vermillion-Kaplan	50.0
Iberia-New Iberia	70.0
Iberia-Jeanerette	50.0
Region V	
Allen-Oakdale	94.0
Calcasieu-Sulphur	98.0
Allen-Oberlin	95.0
Calcasieu-Dequincy	89.0
Calcasieu-Lake Charles	91.0
Jefferson Davis	91.0
Beauregard	95.0
Cameron	89.0
Region VI	
Catahoula-Harrisonburg	80.0
LaSalle	95.0
Rapides	90.0
Grant	88.0
Winn	83.0
Catahoula-Joneville	94.0
Concordia-Vidalia	72.0
Vernon	85.0
Avoyelles-Bunkie	76.0
Concordia-Ferriday	76.0
Avoyelles-Marksville	83.0
Region VII	
Bienville-Ringgold	96.0
Red River	92.0
Claiborne	94.0
Webster-Springhill	96.0
DeSoto	96.0
Natchitoches	94.0
Bienville-Arcadia	96.0
Caddo-Vivian	96.0
Sabine	96.0
Webster-Minden	90.0
Bossier-Bossier City	91.0
Caddo-Shreveport	81.0
Region VIII	
Morehouse-Basdrop	90.0
Franklin-Winnsboro	92.0
West Carroll-Oak Grove	88.0
Ouachita-Monroe	79.0

*Up-to-date includes 4 DTAP, 3 OPV or IPV, and 1 MMR

Immunizations: Percent Up-To-Date at Age 24 Months Louisiana, 2000-2001*	
Clinic	***%UTD 2000-2001 Results***
Region VIII (continued)	
Caldwell	95.0
Tensas-St. Joseph	93.0
Lincoln	77.0
Jackson-Jonesboro	68.0
East Carroll	83.0
Union	85.0
Richland-Rayville	74.0
Ouachita-West Monroe	76.0
Madison	83.0
Region IX	
St. Helena	100.0
Washington-Franklinton	97.0
Washington-Bogalusa	93.0
Tangipahoa-Hammond	100.0
Tangipahoa-Amite	99.0
St. Tammany-Covington	92.0
Livingston-Livingston	89.0
Livingston-Albany	97.0
St. Tammany-Slidell	91.0
Livingston-Denham Springs	99.0

*Up-to-date includes 4 DTAP, 3 OPV or IPV, and 1 MMR

Source: Louisiana Office ofPublic Health, Immunization Program

B. INFECTIOUS DISEASE SURVEILLANCE

Disease Surveillance

Surveillance of infectious diseases, chronic diseases, and injuries is essential to understanding the health status of the population and planning effective prevention programs. The history of the reporting and tracking of diseases that pose a risk to public health in the United States dates back more than a century. Fifty years ago, morbidity statistics published each week were accompanied by a statement "No health department, state or local, can effectively prevent or control diseases without the knowledge of when, where, and under what condition, cases are occurring." Today, disease surveillance remains the primary tool for the gathering of information essential to controlling disease spread in the population. Achievement of the CENTERS FOR DISEASE CONTROL Healthy People 2010 Objectives depends in part on our ability to monitor and compare progress toward the objectives at the federal, state, and local levels.

Infectious disease surveillance activities are a primary function of the programs within the DEPARTMENT OF HEALTH AND HOSPITALS (DHH), OFFICE OF PUBLIC HEALTH (OPH). Many OPH programs exist to conduct disease surveillance for the state of Louisiana. A sampling of these programs includes the INFECTIOUS DISEASES EPIDEMIOLOGY PROGRAM, SEXUALLY TRANSMITTED DISEASES CONTROL PROGRAM, TUBERCULOSIS CONTROL PROGRAM, HIV/AIDS PROGRAM, and IMMUNIZATIONS PROGRAM.

Disease surveillance involves the collection of pertinent data, the tabulation and evaluation of the data, and the dissemination of the information to all who need to know. This process is a

very important aspect of public health because its purpose is the reduction of morbidity. The immediate use of surveillance is for disease control; the long-term use is to assess trends and patterns in morbidity.

Surveillance also facilitates epidemiologic and laboratory research, both by providing cases for more detailed investigation or case-control studies, and by directing which research avenues are most important. Reports of unusual clusters of diseases are often followed by an epidemiological investigation to identify and remove any common source exposure or to reduce other associated risks of transmission.

Notifiable Diseases

Reporting of notifiable diseases to the health department is the backbone of disease surveillance in Louisiana and nationally. The Sanitary Code, State of Louisiana, Chapter II, entitled "The Control of Diseases," charges the BOARD OF HEALTH to promulgate a list of diseases that are required to be reported, who is responsible for reporting, what information is required for each case of disease reported, what manner of reporting is needed, and to whom the information is reported.

Reporting of cases of communicable diseases is important in the planning and evaluation of disease prevention and control programs, in the assurance of appropriate medical therapy, and in the detection of common-source outbreaks. Surveillance data gathered through the reporting of notifiable diseases are used to document disease transmission, quantify morbidity and estimate trends, and identify risk factors for disease acquisition.

The HEALTH DEPARTMENT routinely follows-up selected diseases, either directly or through their physician or other health care provider. This follow-up is done to ensure initiation of appropriate therapy for the individual and prophylactic therapy for contacts of persons with infectious conditions. All reports are confidential.

Confidential disease reporting has been an essential element in monitoring and maintaining the health of the public in Louisiana. Through participation in disease-reporting, physicians and other health care providers are integral to ensuring that public health resources are used most effectively.

Mandatory reporting is required for a number of infectious diseases, including sexually transmitted diseases, HIV/AIDS, tuberculosis, mumps, and many others. The description of surveillance procedures for measles and rubella described later in this chapter is typical of the procedures followed for all reportable diseases.

Infectious Disease Outbreak Investigations

Infectious diseases are transmitted to others by a variety of methods: human to human via oral/fecal route (ingestion of the organism), blood exposure, respiratory route and direct person-to-person contact; vectors such as mosquitoes and ticks; and animal to human (zoonotic). In Louisiana, outbreaks have occurred from a wide variety of infectious diseases including hepatitis A, salmonella, shigella, Norwalk virus, clostridium, campylobacter, pertussis, measles and others. The most compelling reason to investigate a recognized or suspected outbreak of disease is that exposure to the source(s) of infection may be continuing; by identifying and eliminating the source of infection, OPH can prevent additional cases. For example, if cans of mushrooms containing botulinum toxin are still on store shelves or in homes or restaurants, their recall and destruction can prevent further cases of botulism. Another reason for investigating outbreaks is that the results of the investigation may lead to recommendations or strategies for preventing similar future outbreaks. Other reasons for investigating outbreaks are the opportunity to describe new diseases and learn more about known diseases; evaluate existing

prevention strategies, e.g., vaccines; teach epidemiology; and address public health concern about the outbreak.

The effectiveness of the investigation is in large part determined by how quickly and thoroughly investigative activities are initiated. Historically, all infectious disease outbreaks were initiated and managed through the OFFICE OF PUBLIC HEALTH'S INFECTIOUS DISEASE EPIDEMIOLOGY PROGRAM. Frequently, the investigations were hampered by misinformation, inappropriate specimen collection, and/or a lack of complete data. This made it difficult to determine the source of the outbreak and certainly impacted on the timeliness of disease control measures. Several years ago, the INFECTIOUS DISEASE EPIDEMIOLOGY PROGRAM began a statewide intensive training of selected public health field staff that would comprise a Regional Rapid Response Team. These individuals were trained in basic epidemiologic principles, outbreak investigation methodology, computer analysis and interpretation of data, presentation of results, and selection of the appropriate disease control methods.

Each of the nine regional teams (based on the nine public health regions of the state) have three team members - usually a nurse, sanitarian, and disease intervention specialist. Each team member brings a unique set of skills/knowledge that is very important in conducting outbreak investigations. One of these individuals is selected as the Regional Rapid Response Team Coordinator for their region. This person collaborates and coordinates all investigative activities through the INFECTIOUS DISEASE EPIDEMIOLOGY PROGRAM'S Rapid Response Team Coordinator and the Lead epidemiologist assigned to that specific investigation. Initial telephone conferences are held and information assessed. Activities are coordinated and supervised by the INFECTIOUS DISEASE EPIDEMIOLOGY PROGRAM, and guidance and assistance provided as needed. The Regional Rapid Response Team members conduct most of the field activities, and both the INFECTIOUS DISEASE EPIDEMIOLOGY PROGRAM and the regional teams analyze the data. Recommendations are provided and guidance given for instituting appropriate disease control measures. Ten outbreak investigations that occurred within 1998-1999 have involved the participation of the Regional Rapid Response Teams.

Outbreak investigations, an important and challenging component of epidemiology and public health, can help identify the source of ongoing outbreaks and prevent additional cases. Even when an outbreak is over, a thorough epidemiologic and environmental investigation often can increase our knowledge of a given disease and prevent future outbreaks. Outbreak investigations also provide epidemiologic training and foster cooperation between the clinical and public health communities.

This has been a highly successful program. Most outbreaks are handled in a timely manner with effective outcomes. Additionally, since these staff members are located in the communities, they are in a better position to identify potential outbreak situations than are staff members housed in the central office. The concept of using public health staff from different disciplines and cross training them for a common, collaborative purpose sets a precedent for similar efforts dealing with other public health issues, and reflects the agency's goal of developing a streamlined, cost effective, integrated work force. One unexpected benefit has been the increased local visibility creating positive impressions with the public and the media.

Surveillance for Measles and Rubella (German Measles)

All health care providers are required to report suspect cases of measles and rubella by phone immediately to their local public health unit. When a possible case is reported, local and statewide public health personnel are mobilized immediately to evaluate the case and to establish a rapid control effort in order to prevent the spread of the illness. All contacts are interviewed by phone or in person, and children and adults without adequate immunization are immediately vaccinated.

These diseases are highly infectious and spread rapidly. One out of every ten measles cases requires hospitalization and one out of every thousand dies. Women who are infected with rubella during pregnancy have a high likelihood of having severely deformed babies. Women of childbearing age are encouraged to receive two doses of MMR vaccine (at least one month apart) at least three months prior to becoming pregnant.

A measles outbreak was identified in Louisiana in 1995, with 17 cases identified before disease spread was stopped. The outbreak lasted 37 days. Control of the outbreak required the examination of 35 suspected cases, a total of 3,252 phone calls, the immunization of 2,527 individuals, and active investigations at 28 sites (including day care centers, hospitals, and physicians' offices).

Selected 1999 Results of Infectious Disease Surveillance

- Fifty percent of salmonellosis cases occurred in the 0 - 4 year age group.
- Two cases of typhoid fever were reported in individuals who had traveled overseas.
- Shigellosis cases decreased by 42% in 1999.
- Sixty-four percent of cases of vibrio infections reported a history of existing medical conditions.
- One case of *Vibrio Cholera 01* was reported in a 69 year old who consumed raw oysters, shrimp and crawfish and who has a history of peptic ulcer.
- While the number of hepatitis A cases increased 23% in 1999, the state rate of 4.9 per 100,000 is only about half that of the national rate of 8.6/100,000.
- The case rate of hepatitis C in Louisiana is almost 6 times higher than the national rate (7.0 vs 1.3 per 100,000).
- Males accounted for twice as many cases of hepatitis C as females.
- Louisiana's case rate for chlamydia was 53% higher than the U.S. rate (393 vs 237 per 100,000) while gonorrhea rates are more than twice the U.S. rate in 1998 (313 vs 133 per 100,000).
- Louisiana has dropped from 7th highest state in the number of AIDS cases to 10th place, a significant accomplishment.
- AIDS cases has also dropped from the 1st to the 5th leading cause of death among 25 to 44 year old men in Louisiana.
- The metro Baton Rouge area has surpassed the metro New Orleans area with respect to the AIDS case rate, as well as, the rates of newly-detected HIV cases.
- Twenty-five of the twenty-eight cases of cryptococcosis reported in 1999 occurred among those infected with HIV, as well as, 17 of 20 cryptosporidiosis reported cases.
- There were 2 lab-confirmed cases of Eastern Equine Encephalitis (EEE) in humans and 97 lab-confirmed cases in horses in 1999.
- The presence of erythema migrans was reported in only two of 15 cases of Lyme disease in 1999.

- Among the 17 cases of malaria in Louisiana residents in 1999, only 5 reported using prophylaxis during their stay abroad and three of those five reported using prophylaxis incorrectly (intermittent use or starting medication too late).
- In Louisiana, the positivity rate of animal rabies continues to be high in bats and skunks (10.5 and 18.2%, respectively) but extremely low in cats and dogs (0.5 and 0%), a trend that has continued for years.
- Males with gonorrhea were 2.6 times more likely to seroconvert on HIV testing than those with no STD diagnoses.

1998 and 1999 Disease Statistics
Please refer to the Vaccine Preventable Diseases, STDs, TB, and HIV/AIDS sections in "Chapter II: Morbidity."

Reports
The bimonthly *Louisiana Morbidity Report* and the *Epidemiology Annual Report* are published by the OFFICE OF PUBLIC HEALTH, INFECTIOUS EPIDEMIOLOGY PROGRAM. Both publications present information and statistics describing the status of reportable diseases in Louisiana.

C. SEXUALLY TRANSMITTED DISEASE (STD) AND HIV/AIDS SURVEILLANCE

Contracting a sexually transmitted disease can have serious consequences. For example, advanced (tertiary) syphilis can produce neurological, cardiovascular, and other terminal disorders, pelvic inflammatory disease, infertility, ectopic pregnancy, blindness, cancer, fetal and infant death, birth defects, and mental retardation.

The DEPARTMENT OF HEALTH AND HOSPITALS, through the OFFICE OF PUBLIC HEALTH'S STD CONTROL PROGRAM and the HIV/AIDS PROGRAM, conducts surveillance to determine the incidence and prevalence of STDs and HIV/AIDS, monitors STD and HIV/AIDS trends, collects data on the location and referral of persons with or suspected of having a STD for examination and early treatment, and conducts partner notification to limit the spread of the diseases.

1999 National Rankings
Nationally, Louisiana has a high ranking among the 50 states with regard to rates of sexually transmitted diseases (STDs) and HIV/AIDS.

- Primary and secondary syphilis rates in Louisiana fell from 2nd to 7th highest in the nation between 1995 and 1997. In 1998, however, the state ranking rose to 3rd highest, where it remained in 1999.
- Gonorrhea rates rose from 10th highest in the nation in 1995 to 3rd highest in 1999; chlamydia rates rose from 11th to 4th highest in the nation during the same time period. The rise in ranking for gonorrhea and chlamydia reflects an increase in the number of labs included in the state's STD surveillance system. This has resulted in the identification of cases that would not have been identified in the past.
- Louisiana's rank decreased from 7th highest in 1998 to 10th highest in 1999 among states with the highest AIDS (Acquired Immunodeficiency Syndrome) rates. Among United States metropolitan areas, New Orleans ranked 14th and Baton Rouge ranked 12th highest.

1999 and 2000 Disease Statistics
Please refer to the STDs and HIV/AIDS sections in "Chapter II: Morbidity."

Reports
The STD CONTROL PROGRAM and the HIV/AIDS PROGRAM maintain program databases, and generate specific reports and analyses by cause, location, and demographic factors for individuals, communities, and agencies. The HIV/AIDS PROGRAM also publishes the *HIV/AIDS Annual Report*, monthly reports and nine annual regional reports which are available to the public.

D. TUBERCULOSIS SURVEILLANCE

The Louisiana OFFICE OF PUBLIC HEALTH TB CONTROL PROGRAM conducts active surveillance for tuberculosis in the state. Regional staff interact with area physicians, hospitals, and laboratories in the course of their duties. All known or suspected cases of tuberculosis are investigated to assure that transmission of tuberculosis is contained.

Currently, TB Control in Louisiana is working with CDC to enhance surveillance activities. Improved methodology is being implemented to facilitate reporting and tracking.

1999-2000 Disease Statistics
Please refer to the Tuberculosis section in "Chapter II: Morbidity."

E. ALCOHOL & DRUG ABUSE PROGRAM: INTRAVENOUS DRUG USE TREATMENT AND STD, TB, AND HIV/AIDS SCREENING

National statistics show that more than 70 conditions requiring hospitalization, most notably cancer, heart diseases, and HIV/AIDS, have risk factors associated with substance abuse, and $1 of every $5 Medicaid spends on hospital care is attributable to substance abuse (DEPARTMENT OF HEALTH AND HUMAN SERVICES, 1997 Fact Sheet). The same report shows that injecting drug use is the primary model of transmission of HIV among women and is responsible for 71% of AIDS cases among women. The lifetime cost of taking care of one AIDS patient is approximately $85,000.The SUBSTANCE ABUSE AND MENTAL HEALTH SERVICES ADMINISTRATION estimates that over 5 million persons in the U.S. were in need of treatment for severe drug abuse problems in 1998. Almost 60% of these people, an estimated 2.9 million, have not received treatment for their addiction. The size of this treatment gap has remained relatively unchanged over the past 8 years, ranging from 54% to 68% (CSAT by Fax, August 30, 2000, Vol. 5, Issue 13][1]

As part of the Louisiana's State Demand Need Assessment Studies the OFFICE FOR ADDICTIVE DISORDERS (OAD) collaborated with the Research Triangle Institute, North Carolina, and L.S.U. Medical Center, New Orleans, an published an Integrated Population Estimates of Substance Abuse Treatment Needs Study, August 1999. This work was supported by the CENTER FOR SUBSTANCE ABUSE TREATMENT (CSAT). The study shows that 10.2% of Louisiana adults, or 318,857 persons, were found to be in need of substance abuse treatment. The region with the greatest number of persons needing services was Region 1 (Orleans, Plaquemine and St. Bernard parishes). The region with the fewest number of individual needing treatment was Region 6 (Avoyelles, Catahoula, Concordia, Grant, LaSalle, Rapides and Vernon parishes).

[1] CSAT by Fax is a bi-weekly publication produced and distributed by facsimile under the Knowledge Application Program (KAP], US Department of Health and Human Services.

Epidemiology

The Community Epidemiology Work Group (CEWG) is a national network of epidemiologist and researchers that meets twice a year to discuss current and emerging substance abuse problems. A CESAR[2] Report (September 4, 2000, Vol. 9, Issue 35] highlighting proceedings from the 48th CEWG meeting, held in Baltimore, Maryland, in June 2000 shows the following trends:

Ecstasy (MDMA) appears to be increasing in the 21 CEWG areas. Additional data (CESAR, September 18, 2000, vol. 9, Issue 37] indicates "The percentage of high school seniors reporting that Ecstasy was "fairly easy" or "very easy" to obtain increased from 22% in 1989 to 40% in 1999, according to the data from the Monitoring the Future high school survey. These findings support recent reports that Ecstasy, traditionally associated with clubs and rave parties, is becoming more acceptable to other main stream populations.

Marijuana indicators, which have increased dramatically over the past decade, stabilized in 17 of the 21 CEWG areas. However, marijuana abuse remains a serious problem.

Methamphetamines use continues to decline since 1999 in the CEWG areas. Cocaine Indicators continue to decrease or remain stable in the majority of the CEWG areas.

Key findings issued by the Louisiana State Epidemiology Work Group (LAEWG] in their May 1998 Proceedings show a decline in admissions by primary drug of abuse across the 10 parishes for Cocaine, Alcohol and Methamphetamine. Increases in admissions were recorded for Marijuana, Heroin and "Other Drugs".

The State of Louisiana Communities that Care Youth Survey (CTC): Student Use of Alcohol, Cigarettes, Marijuana and Inhalants

According to a Communities that Care (CTC) Youth Survey (6th, 8th, 10th, and 12th grades) published in May, 1999, the substances that are the most commonly used by Louisiana's students - alcohol, tobacco, marijuana and inhalants - are used at levels that are similar to current national levels.

Alcohol is the most widely used substance. The lifetime prevalence rate for alcohol rises from 28% in 6th grade to 79% in 7th grade. Combining all grade levels, slightly more than half (55%] of all students have used alcohol sometime in their lifetimes. Nearly one third (32%) of Louisiana students reported using alcohol in the past 30 days.

Tobacco (cigarettes and chewing tobacco] is the next most commonly used substance among Louisiana students. Lifetime prevalence of cigarette use in Louisiana ranges from 27% in the 6th grade to 33% in the 12th grade; 32% of students reported using cigarettes in the past 30 days. Overall, 49% of Louisiana students have used cigarettes sometime in their lifetime.

Marijuana use has risen over the last six years for middle and high school students. In their lifetime, about 22% of Louisiana students have used marijuana, with lifetime use rising from 4% in the 6th grade to 42% in the 12th grade. Thirty-day use of marijuana was 10% across all grades, with 2% of 6th graders reporting use in the past 30 days and 18% of 12th graders reporting use.

[2] CESAR by Fax is a weekly publication produced and distributed by facsimile under the Governor's Office of Crime Control & Prevention.

Intravenous Drug Users Treatment

OFFICE FOR ADDICTIVE DISORDERS' policy gives Intravenous Drug Users (IDUs) statewide priority admission status to programs (contract and state) and treatment modalities. Block grant requirements mandate that IDUs be admitted to treatment programs within 14 days after request for admission, and be provided with interim services within 48 hours if comprehensive care cannot be made available upon initial contact, with a waiting period of no longer than 120 days. OAD offers outreach services statewide using the Indigenous or Behavioral Model, or other outreach models. Activities include: education, prevention, condom distribution, clean needle demonstrations, medical evaluations and referrals.

STD, TB, And HIV/AIDS Screening

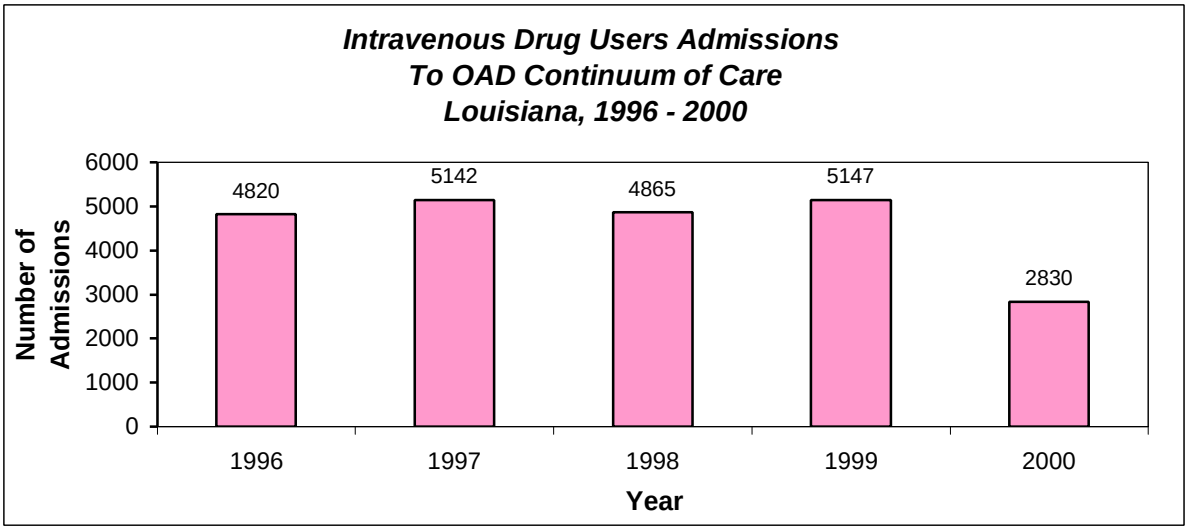
In addition to treatment of addiction problems, OAD makes available sexually transmitted disease (STD), tuberculosis (TB), and HIV testing to each individual receiving treatment. Testing is offered, either directly or through arrangements with other public or nonprofit private entities, through a Qualified Service Organization Agreement (QSOA) and a Memorandum of Understanding (MOU) between the OFFICE OF PUBLIC HEALTH and OAD. This system includes the provision of the necessary supplies by the OFFICE OF PUBLIC HEALTH'S STD CONTROL, TB CONTROL, and HIV/AIDS PROGRAMS for on-site STD, TB, and HIV testing of OAD clients. Early intervention services include screening testing and pre- and post-test counseling. Individuals testing positive are referred to the OFFICE OF PUBLIC HEALTH Outpatient Clinics for further evaluation and appropriate testing. Upon a client being identified as an HIV patient in our system, he or she is referred to the local consortium and/or directly to the Charity Hospital outpatient clinics, under the auspices of the OFFICE OF PUBLIC HEALTH. Besides referrals to public agencies, clients can be referred to other HIV supportive services that are available in the community. OAD utilizes this referral network to access additional services for substance abuse clients diagnosed with HIV/AIDS. The Office has established a working relationship with the referral entities and is able to monitor the needs of clients who have been referred. OAD also provides ongoing counseling to its clients regarding HIV prevention and treatment, self-help groups, and information and referral services.

OAD participates on the Statewide HIV Community Planning Group (SCPG) and two subcommittees at the regional level: Nominations and Special Needs. The goal of the statewide group for SFY 2000 is 1) submit a plan of action to CDC for state prevention; 2) recruit new members for both committees; 3) identify at risk areas within the region that need HIV prevention planning; and 4) identify at risk populations to apply to the prevention plan. Groups identified for SFY 2000 are racial and ethnic minority groups, sexually active females, men who have sex with men, youth and substance abusers. Interventions utilized were street outreach, counseling and testing, and condom availability. The committees include individuals with expertise in education, substance abuse, health, and public health; special populations with representatives from each region (who generally represent at-risk communities); and representatives from the DEPARTMENT OF PUBLIC SAFETY AND CORRECTIONS, EDUCATION, and OAD. The regional CPG meets monthly and the statewide committee meets quarterly.

1999-2000 Program Statistics

Intravenous Drug Users (IDUs)

OAD Management Information System reports that there were 2,830 intravenous drug user (IDUs) admissions to the OAD continuum of care during SFY 2000, (9% of the total admissions), 5,147 during 1999 (17% of the total admissions) 4,865 during 1998 (18% of the total admissions), 5,142 admissions during SFY 1997 (20% of the total admissions) and 4,820 admissions for SFY 1996 (19% of the total admissions). Figures for SFY 2000 are significantly lower than prior years.

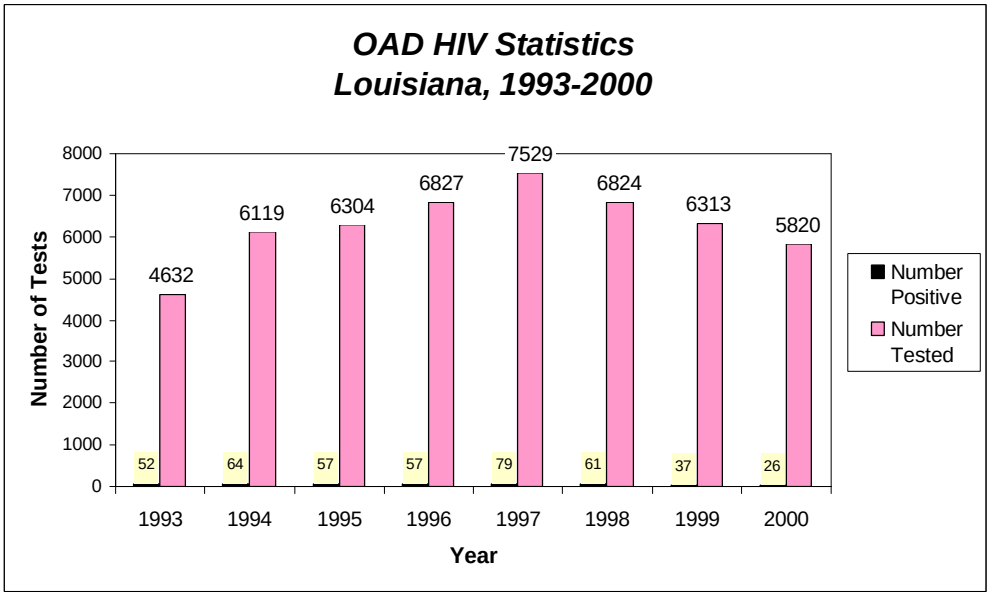


Source: Office for Addictive Disorders

HIV/AIDS

In SFY 1999 Louisiana had an incidence of 18 HIV cases per 100,000 population, and because of this, Louisiana is a designated state for the purposes of block grant expenditure for HIV services (minimum of 5% of the total award).

The OFFICE OF PUBLIC HEALTH'S (OPH) summary of statistics for calendar year 2000 shows that 5,820 HIV tests were conducted at OAD sites. Of this population, 26 test were positive (<1%]. OAD sites performed approximately 9.8% of the total HIV testing done in the state in 2000. During 1997, OPH tested 7,529 OAD clients for HIV and obtained 79 (1%) positive results.



Source: Office for Addictive Disorders

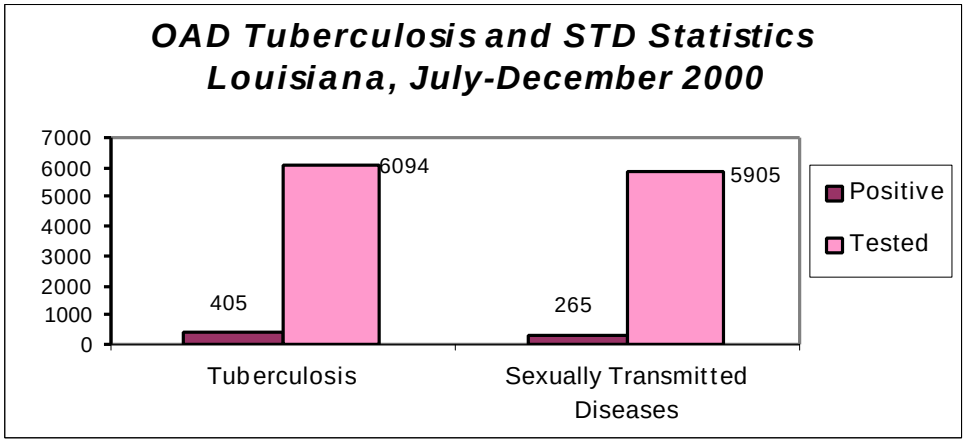
OPH data for the 1998 calendar year indicate that 6,824 OAD clients were tested for HIV, and 61 (1%) were found to be HIV positive. OPH data for calendar year 1999 show approximately 6,313 clients from OAD clinics were tested for HIV, with 37 (<1%) clients having positive test results. There have been no significant changes in positive results trends since 1992. OAD provided 5,191 services to addicted population during SFY 2000.

Tuberculosis

For the first half of SFY of 2001 6,094 tuberculosis tests were conducted, and 405 positive results were obtained. This represents 7% of clients tested (OAD Set Aside Quarterly Reports]. OAD Management Information System reports 9,117 services provided to TB infected clients during SFY 2000.

STDs

A total of 5,905 Sexually Transmitted Disease (STD] tests were conducted during the first half of SFY 2001. Positive results were found in 265 clients. This represents 4% of clients tested (OAD Quarterly Set Aside Reports]. OAD Management Information System reports 5,442 services to STDs infected clients for SFY 2000.



Source: Office for Addictive Disorders

F. STATEWIDE CHILD DEATH REVIEW PANEL

State legislation mandates a Statewide Child Death Review Panel, staffed by the OFFICE OF PUBLIC HEALTH'S INJURY RESEARCH AND PREVENTION SECTION and composed of a multi-disciplinary group of other professionals. The Panel mandate requires the review of records for all unexpected deaths of children under age fourteen. The INJURY RESEARCH AND PREVENTION SECTION identifies these records by searching the mortality files. The Panel is to assure that proper investigation, follow-up, and prevention programs to limit or prevent such deaths are in place.

The INJURY RESEARCH PROGRAM has worked with other Panel members to establish similar Panels in the larger communities of the state. These local panels can perform reviews more promptly and facilitate the translation of investigative findings into community activities to reduce these unexpected deaths.

Reports
The Statewide Child Death Review Panel prepares a mandated *Annual Report* to the Legislature, which is available to the public through the INJURY RESEARCH AND PREVENTION SECTION

G. BRAIN AND SPINAL CORD INJURY REGISTRY

The legislatively mandated Registry of Brain and Spinal Cord Injuries is maintained within the INJURY RESEARCH AND PREVENTION SECTION. Injuries followed through the registry are classified as "Reportable Conditions". The Injury Program works with the mandated reporters, mostly hospitals, to build this Registry. The INJURY RESEARCH AND PREVENTION PROGRAM further reviews death certificates so that fatal cases are not missed. Brain and spinal cord injuries can be exceptionally devastating and costly. With assistance from Louisiana hospital emergency room staff, details surrounding the injury are extracted and used to provide information on leading causes, highest risk groups, and recognized special needs so that interventions and services can be identified. Examples of prevention programs generated from these data include prevention of falls from deer stands, safe tackling practices for high school football players, and recommendations to make junior rodeo riding safer.

1998 Statistics
Please refer to the Brain and Spinal Cord Injury Registry section in "Chapter 1: Morbidity" for a graphic representation of the INJURY RESEARCH AND PREVENTION PROGRAM'S Traumatic Brain Injury data.

Reports
OPH's INJURY RESEARCH AND PREVENTION SECTION produces an extensive *Annual Report*, available to the public, describing these injuries.

H. INJURY SPECIFIC DEATHS DATABASE

The Injury Research and Prevention Program has created and maintains the Injury-Specific Deaths Database from mortality files dating back to nineteen eight-six (1986). This special Database organizes death certificate information on all injury-related deaths in the State. This information is used to examine trends in the occurrence of specific injuries or groups of injuries, and to identify and track the injury experiences of different risk groups. It provides important data for planning and evaluation of interventions, as well as the identification of emerging problems. Due to the change to ICD 10 standards for identifying cause of deaths, there will be a brief delay in extracting the most recent mortality data.

Reports
The INJURY RESEARCH AND PREVENTION SECTION maintains this database and can generate specific reports and analyses by cause, location, and a variety of demographic factors upon request for individuals, communities, or agencies.

I. BURN INJURIES

Hospitals are required by legislation to report severe burn injuries to the OFFICE OF THE STATE FIRE MARSHAL to assist in the identification of arsonists. The INJURY RESEARCH AND PREVENTION SECTION entered into a partnership with the State Fire Marshall to provide a broader analysis of data that describe patterns of burn injuries in Louisiana. Aggregation of these data, along with burn injury death data, will allow the INJURY RESEARCH AND PREVENTION SECTION to better describe the circumstances leading up to fatal and non-fatal burn injuries. Development of burn injury prevention initiatives can be based on these findings.

Reports
The INJURY RESEARCH AND PREVENTION SECTION maintains this database and can generate reports upon request.

J. LOUISIANA ADOLESCENT HEALTH INITIATIVE

There was a strong desire among policy-makers at the DHH, OFFICE OF PUBLIC HEALTH to increase efforts to adequately address the complex social, emotional and medical needs of the under-served adolescent population. The result was the September 1995 launching of the Louisiana Adolescent Health Initiative (AHI). AHI facilitates a coordinated, multi-disciplinary approach to adolescent health care, disease prevention and health promotion in the state. The goal of the Initiative is to provide Louisiana adolescents with the opportunity to prosper in a healthy, nurturing and safe environment. The Initiative is reaching this goal by increasing coordination and collaboration between internal programs and external agencies, by infusing adolescent voices in planning and policy-making efforts of the state and by providing an infrastructure that enables local communities to more effectively and efficiently address adolescent health needs.

The collection of data and dissemination of information is an essential part of the Adolescent Health Initiative. Providing information on both adolescent health issues and on current adolescent health activities is a priority! The state public health office serves as a synthesizer and central repository for such information. The use of statewide teen health questionnaires and statewide adolescent focus groups, coupled with the collection of adolescent health statistics, provides parents, communities, politicians and policy makers with a clear picture of adolescent health in Louisiana.

Currently, there are many state and local projects that emphasize different aspects of adolescent health. Some focus on teenage pregnancy or teen parenting, while others focus on HIV/AIDS, tobacco control, conflict resolution, cardiovascular health, or on the maintenance of school-based health clinics. The Initiative allows for the planning, development, implementation and evaluation of these activities in a coordinated, collaborative fashion. In addition, it broadens the scope of cooperation to include the DHH OFFICES OF MENTAL HEALTH and ALCOHOL AND DRUG ABUSE, the OFFICE OF YOUTH SERVICES, and others. Such team-building efforts are necessary to merge the work of all agencies working with the common goal to ensure health & happiness for all LA's youth.

Results

Activities to date include:

- Produced and distributed the first edition of the *LA Adolescent Data Book,* which includes a statistical compilation of adolescent health indicator data
- Produced and distributed the *2000 LA Teen Pregnancy Prevention Directory,* which includes a listing of statewide programs that provide counseling and medical services to help teens prevent pregnancy
- Produced and distributed the *2000 Louisiana Adolescent Health Fact Sheet*, which
- presents an accurate description of the health status of Louisiana adolescents
- Planned and coordinated the 2000 Safe Summer Youth Rally and the 2000 Adolescent Pregnancy Prevention-Parent Summit
- Administered quarterly statewide Adolescent Health Initiative Steering Committee Meetings
- Increased coordination with both internal DHH, OPH programs, and external agencies involved in public health, public policy and social welfare
- Collaborated with other state and national adolescent projects (National Campaign to Prevent Teen Pregnancy)
- Provided technical assistance to local, statewide and national adolescent health coalitions that are performing comprehensive adolescent activities (Let's Talk Month Activities)
- Served as an Adolescent Specialist on many statewide Adolescent Task Force's
- Administered the Teen Talk 2000 Focus Group Project to nearly 300 Louisiana youth in all nine OPH Administrative Regions
- Gave AHI Presentations at national (i.e., Healthy People 2010), statewide and local conferences
- Placed AHI highlights in four Louisiana newspapers and national newsletters

K. LaPRAMS

Overview

The Louisiana Pregnancy Risk Assessment Monitoring System (LaPRAMS) is an on-going, population-based surveillance system designed to identify and monitor selected maternal behaviors that occur before and during pregnancy and during a child's early infancy. It is a joint effort between the OFFICE OF PUBLIC HEALTH and the CENTERS FOR DISEASE CONTROL AND PREVENTION (CDC). The CDC, OPH VITAL RECORDS REGISTRY and STATE CENTER FOR HEALTH STATISTICS, and TULANE SCHOOL OF PUBLIC HEALTH AND TROPICAL MEDICINE provide technical assistance to LaPRAMS. The CDC, along with the OPH FAMILY PLANNING and MATERNAL AND CHILD HEALTH programs, provide funding for the project.

LaPRAMS data are collected from a representative random sample of new mothers by means of mail surveys and telephone interviews. Louisiana women who have had a recent live birth are randomly selected to participate in LaPRAMS. Since data collection was initiated in 1997, 7,404 women have received the LaPRAMS questionnaire. In 1998, 2,421 women were

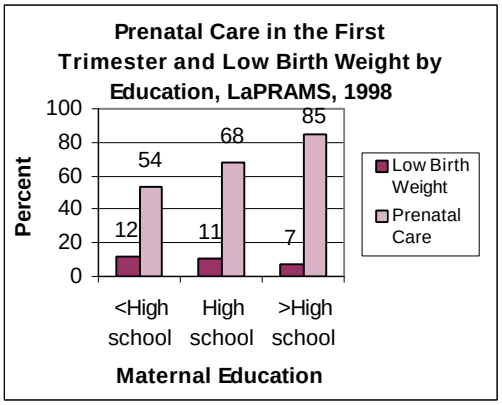
selected to receive the questionnaire. Over 73% of the women selected in 1998 completed the survey for 1998 births (full year data). The average response rate for 1997-1998 was approximately 72%, a response rate that currently is maintained. Since LaPRAMS is based on a representative sample, the data collected by this survey represents information that is generalizable to the whole state of Louisiana.

Information provided by LaPRAMS includes: medical and physical factors, socioeconomic status, prenatal maternal experiences and behaviors (cigarette smoking, alcohol use, and physical abuse), prenatal care counseling, use and barriers to prenatal care, content and quality of care, complications during pregnancy, birth control use before and after pregnancy, sources of prenatal care and payment of delivery, and postpartum maternal experiences and behaviors.

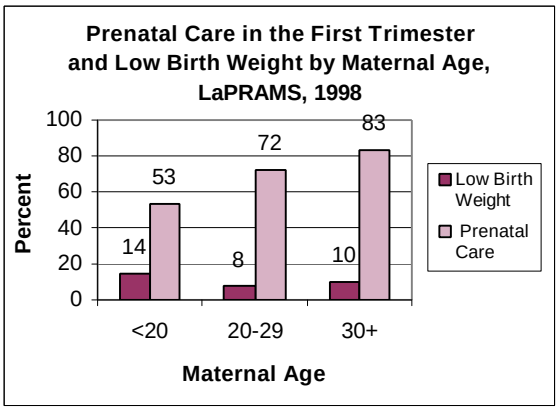
Results

The following findings are based on LaPRAMS 1998 data.

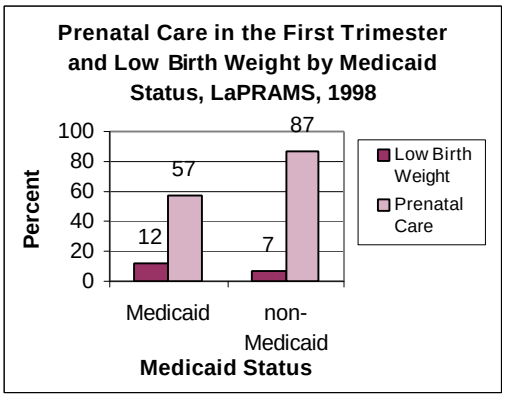
- ***Low birth weight and intensive care*:** Ten percent of births in Louisiana are low birth weight (below 2500 grams). The *Healthy People 2010* target is 5%. Fifty-one percent of low birth weight infants were admitted to an Intensive Care Unit.
- ***Early initiation of prenatal care*:** Seventy-two percent of women reported initiation of prenatal care during the first trimester of their pregnancy. The *Healthy People 2010* target for initiation of prenatal care in the first trimester is 90%. Socio-demographic factors associated with initiation of prenatal care in the first trimester are shown below.



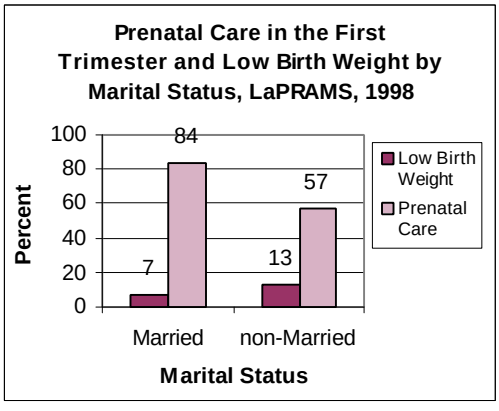
Source: Office of Public Health, LaPRAMS



Source: Office of Public Health, LaPRAMS

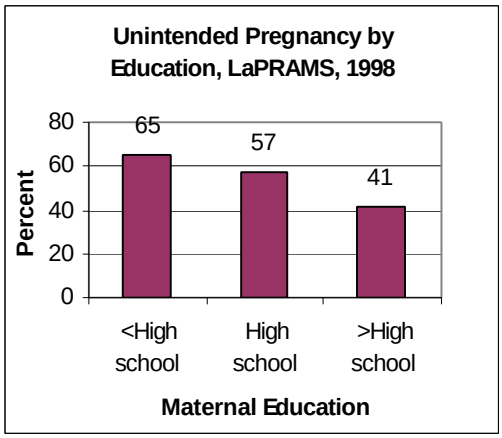


Source: Office of Public Health, LaPRAMS

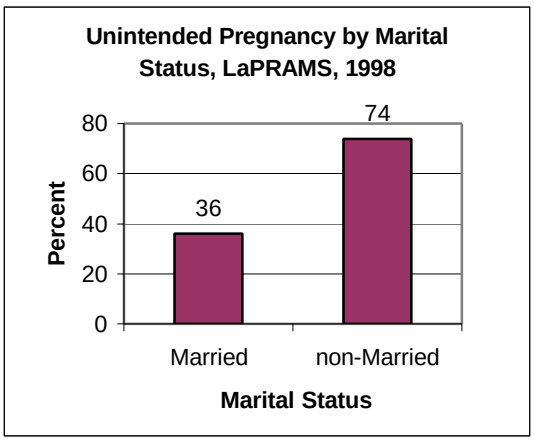


Source: Office of Public Health, LaPRAMS

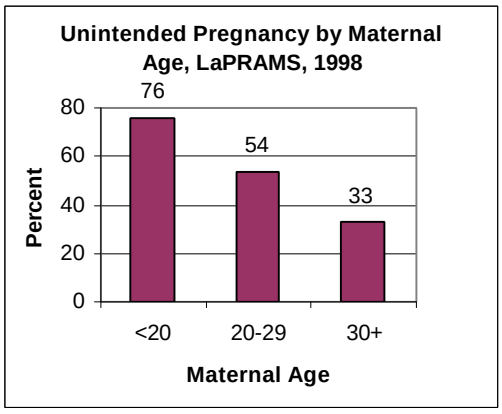
- ***Unintended pregnancies*:** Fifty-three percent of women reported that their pregnancies were unintended. Unintended refers to the timing of the pregnancy, i.e. whether the woman desired the pregnancy to be at some time in the future or not at all. The *Healthy People 2010* target for unintended pregnancies is 30%. Socio-demographic factors associated with unintended pregnancies are shown below.
- ***Birth control use:*** Over 25% of women surveyed were using birth control when they became pregnant. 74% of women reported that they were not using birth control when they became pregnant. Reasons for not using birth control include wanting to become pregnant, the side effects of the birth control methods, not anticipating sex, thinking that they were infertile and just not wanting to use birth control. Socio-demographic factors associated with birth control use are shown below.



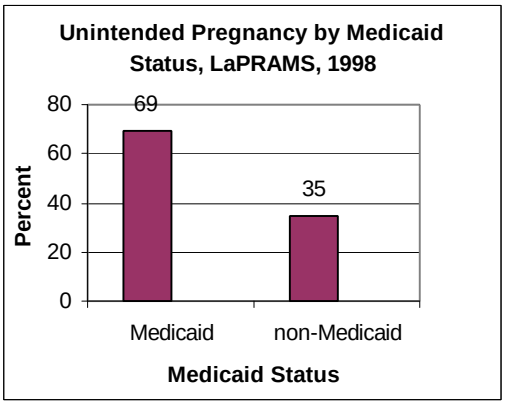
Source: Office of Public Health, LaPRAMS



Source: Office of Public Health, LaPRAMS



Source: Office of Public Health, LaPRAMS



Source: Office of Public Health, LaPRAMS

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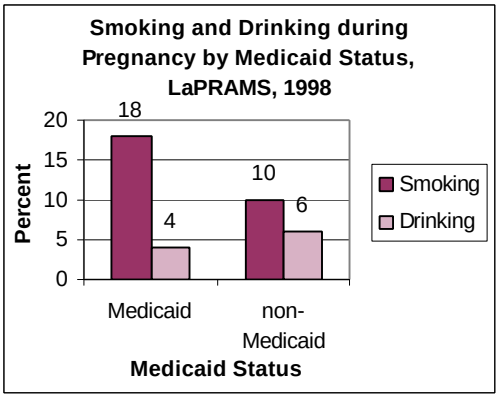
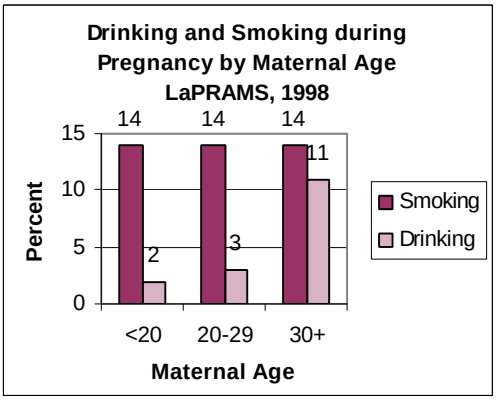
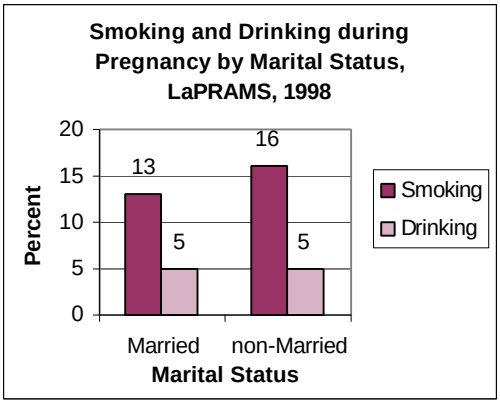
- ***Cigarette smoking before, during, and after pregnancy*:** In the three months prior to pregnancy, 35% of women reported that they had smoked. The percentage decreased during pregnancy to 14% but increased to 21% at 3-6 months after delivery, a level slightly lower than the pre-pregnancy rate. The *Healthy People 2010* target for women, in general, is 15% and is 1% for pregnant women.
- ***Alcohol consumption before and during pregnancy*:** Forty-three percent of women reported that they drank alcohol during the three months before pregnancy, and 5% reported that they drank alcohol during the last trimester of their pregnancy. The *Healthy People 2010* target for pregnant women is 6%.



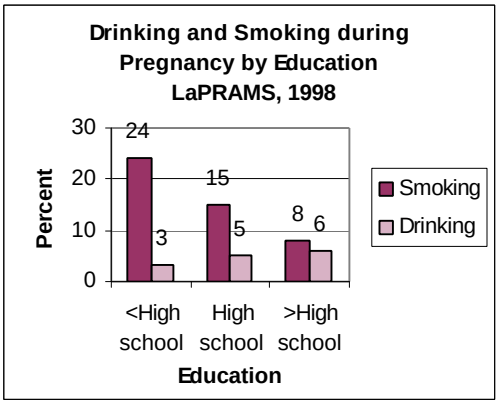
Source: Office of Public Health, LaPRAMS



Source: Office of Public Health, LaPRAMS

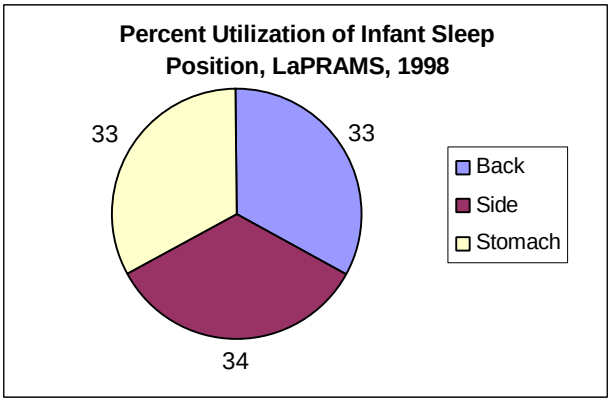


Source: Office of Public Health, LaPRAMS



Source: Office of Public Health, LaPRAMS

- ***Infant sleep position*:** Among women surveyed, 33% placed the baby on its back, 34% placed the baby on its side, and 33% placed the baby on its stomach. Research shows that placing a baby on the back to sleep reduces the risk of Sudden Infant Death Syndrome (SIDS).



Source: Office of Public Health, LaPRAMS

- ***WIC participation*:** Fifty-five percent of women reported being on WIC (the Special Supplemental Nutrition Program for Women, Infants, and Children) during their pregnancy.
- ***Breastfeeding*:** Forty-three percent of women breastfed their infants beyond one week. Those who breastfed beyond one month dropped to 31%. The *Healthy People 2010* target for breastfeeding during the early postpartum period is 75%. Socio-economic factors, such as maternal age, maternal education, marital status and Medicaid status, were associated with breastfeeding beyond the first week. Mothers over 30 years of age, mothers with more than a high school education, married mothers and non-Medicaid mothers were most likely to breastfeed their infants beyond the first week. Among mothers less than 20 years of age, 22% breastfed their infants. Nineteen percent of mothers with less than a high school education breastfed beyond the first week. Twenty-six percent of unmarried mothers breastfed their infants and 29% of mothers on Medicaid breastfed beyond the first week.

Data from LaPRAMS will be used to supplement information from vital records and to generate information for planning and assessing perinatal health programs around the state. Findings from the data will also be used to develop programs designed to identify high-risk pregnancies. In addition, LaPRAMS data will enhance the understanding of maternal behaviors and the relationship between these behaviors and adverse pregnancy outcomes, such as low birth weight and infant mortality.

The LaPRAMS 1999 data analysis phase was recently initiated. During 2001, LaPRAMS data will be used to measure federal block grant performance indicators for both MATERNAL AND CHILD HEALTH and FAMILY PLANNING. A 1999 surveillance report will be provided to OPH program staff at the beginning of this year. This report will present OPH program administrators an important fundamental overview of maternal behaviors and experiences in Louisiana. It also will afford OPH programs the opportunity to identify future LaPRAMS analyses tailored to supply more detailed health information.

L. ORAL HEALTH ASSESSMENT

The effects of poor oral health can greatly impact the overall health of an individual. Poor oral health in children can have far-reaching results, including infection, absence from school, and malnutrition. The ORAL HEALTH PROGRAM OF THE OFFICE OF PUBLIC HEALTH, MATERNAL AND CHILD HEALTH PROGRAM, is charged with monitoring the oral health status of Louisiana's children.

Comprehensive Oral Health Needs Assessment

The ORAL HEALTH PROGRAM has several ongoing initiatives, one of which is a Comprehensive Oral Health Needs Assessment among Louisiana's children. This needs assessment uses data for successive years, gathered from two sources: survey data collected by the ORAL HEALTH PROGRAM and dental Medicaid claims data.

A study in which school health nurses screened third-grade children throughout the state showed that 38% of the children had untreated caries. The prevalence of dental sealants among the children was 22%, well below the national objective of 50%. Of the 1435 children screened, 532 (37%) required referral to a dentist, strongly demonstrating the need of this population for dental care.

A study of Louisiana Medicaid data by the Centers for Disease Control, published in the September 3, 1999, issue of the *Morbidity and Mortality Weekly Report*, showed that the average treatment costs for Medicaid-eligible children living in non-fluoridated areas were twice as high as the average treatment costs for Medicaid-eligible children living in fluoridated areas. The study also showed that Medicaid-eligible children living in non-fluoridated areas were three times as likely as Medicaid-eligible children living in fluoridated areas to receive dental treatment in a hospital operating room.

The number of water systems adjusting fluoride content decreased from 73 in 1986 to 45 in 1998, and the percentage of the population of the state receiving optimally-fluoridated water decreased from 54% in 1986 to only 49% in 1998. This trend is away from the national objective of 75% of the population receiving optimally-fluoridated water.

M. ENVIRONMENTAL EPIDEMIOLOGY AND TOXICOLOGY

Louisiana ranks among the top states in the United States in the per capita production of hazardous wastes and in the amount of chemicals released into its water, air, and soil.

The OFFICE OF PUBLIC HEALTH, SECTION OF ENVIRONMENTAL EPIDEMIOLOGY AND TOXICOLOGY (SEET) promotes the reduction in disease morbidity and mortality related to human exposure to chemical contamination within the state of Louisiana. SEET oversees and responds to public health needs with regard to environmental health issues.

In recent years, there has been an increase in public awareness of the acute and chronic health effects of chemicals in the environment and a greater demand for SEET to investigate these effects. SEET attempts to address residents' concerns by:

- Identifying toxic chemicals in the environment that are likely to cause health effects
- Evaluating the extent of human exposure to these chemicals and the adverse health effects caused by these exposures

- Making recommendations for the prevention/reduction of exposure to toxic chemicals and the adverse health effects caused by these exposures
- Promoting a better public understanding of the health effects of chemicals in the environment and of the ways to prevent exposure.

Activities conducted by SEET include:

Epidemiological and Toxicological Investigations

- Public Health Assessments and Consultations (Toxic Site Assessments)
- Pesticide Exposures
- Disease Cluster Response
- Cancer Mortality Trend Analysis
- Mercury Blood Screening

Environmental Health Advisories (See "Chapter IV: Preventive Health Outreach Programs.")

- Mercury in Fish

Environmental Health Education (See "Chapter IV: Preventive Health Outreach Programs.")

- Health Effects Related to Pesticide Exposure
- Mercury in Fish
- Health Professional Education
- Public Health Response for Chemical Spills

The projects described below in more detail are representative of those coordinated by SEET.

Public Health Assessments and Consultations
Health Assessors complete extensive Public Health Assessments or shorter Health Consultations for Superfund and other hazardous waste sites in Louisiana. The Public Health Assessment is an evaluation of all relevant environmental information, health outcome data, and community concerns around a hazardous waste site. It identifies populations potentially at risk and offers recommendations to mitigate exposures. A Health Consultation is a response to a request for information and provides advice on specific public health issues that could occur as a result of human exposure to hazardous materials. Based on the above documents, health studies, environmental remediation, health education, exposure investigation, or further research may be recommended.

As of June 30, 2000, there are currently 114 confirmed and 568 potential inactive and abandoned hazardous waste sites in Louisiana, according to the DEPARTMENT OF ENVIRONMENTAL QUALITY. SEET is evaluating the public health impact of 28 of these sites. Details concerning these activities can be obtained from SEET. SEET also (1) develops fact sheets and other handouts to help inform the local community about health issues around hazardous waste sites, (2) responds to an individual's request for toxicological and medical

information, and (3) makes presentations in public meetings and availability sessions around the state.

Central Wood Preserving (CWP)

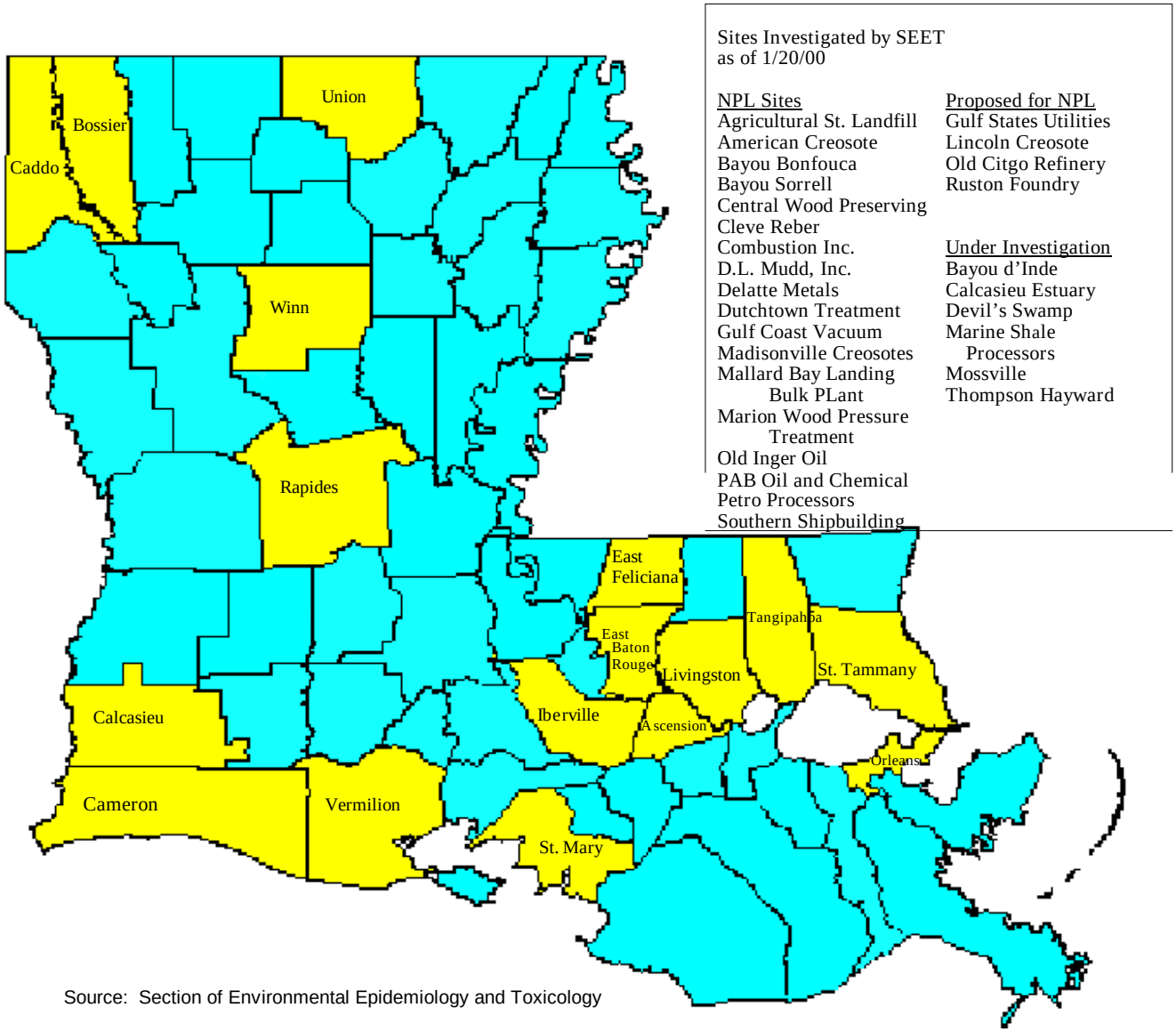
The 12-acre CWP site is a former wood treating facility located in the city of Slaughter, East Feliciana Parish, Louisiana. The site operated from 1950 to 1991 and used creosote or Wolman Wood Preservative, a solution of cooper, chromium, and arsenic salts, as wood preserving agents. The CWP site contaminants of concern include arsenic, chromium, copper, and polycyclic aromatic hydrocarbons (PAHs). This site was placed on the Environmental Protection Agencies (EPA) National Priorities List (NPL) in 1999.

The CWP site is bordered by wetlands to the north and south, residential property to the northwest and northeast, and a creek and associated wetland to the east- southeast. Surface waters from the former facility operations area drain into these wetlands.

Currently, soil exposure is the primary on-site pathway of concern due to the public accessibility to a portion of the site and the known elevated levels of arsenic, chromium, copper, and PAHs. The levels of contaminants present in the on-site soils at the CWP site represents a public health hazard. Soil and sediment exposure is also the primary off-site pathway of concern due to elevated levels of arsenic.

In July 2000, SEET staff administered a Needs Assessment (NA) to approximately 10 homes adjacent to the CWP site. The heads-of-household were asked about their health problems and about the health conditions of other household members. There were 30 health conditions reported by adults (over 18 years of age). No health problems were reported by 73.3% of the adult population. Health concerns reported for children were allergies, anemia, and chicken pox. The heads-of-household were also asked about their other environmental health concerns. Seven, both males and females, reported having no concerns. The other concern expressed was allergies. Follow-up to the community will be in the form of a mail out of the Executive Summary of the Needs Assessment to the 10 households.

Louisiana Parishes with Superfund and Selected Hazardous Waste Sites



Source: Section of Environmental Epidemiology and Toxicology

Pesticide Exposures

Health-Related Pesticide Incident Report Program

The Health-Related Pesticide Incident Report (HRPIR) Program is a complaint-based, statewide program designed to investigate and evaluate adverse health effects related to acute pesticide exposure. The Louisiana Department of Agriculture and Forestry (LDAF) and SEET jointly investigates complaints. Investigations involve the collection and review of environmental and health data relevant to the exposure incident. Data are reviewed to determine short-term and long-term health effects related to the pesticide exposure. A written summary of the findings is provided to the complainant.

Cases are classified using criteria that consider the plausibility of reported health effects based on the known toxicology of the pesticide(s) involved.

Case Classification Categories:

- Confirmed—Health effects confirmed as being related to pesticide exposure.
- Likely—Health effects likely related to pesticide exposure.
- Possible—Health effects possibly related to pesticide exposure.
- Unlikely—Health effects unlikely related to pesticide exposure.
- Not Pesticide-Related—Health effects not related to pesticide exposure, or there is insufficient evidence to determine the cause of health effects.
- No Symptoms Reported—No symptoms were reported related to pesticide exposure.

1999-2000 Health-Related Pesticide Incident Reports

There were 37 health-related pesticide incidents involving 119 cases reported to LDAF and SEET from 0ctober 1999 through September 2000. As of January 31, 2001, 20 incidents involving 55 cases have been investigated and closed. Classification of the 55 cases include 2 'confirmed,' 8 'likely,' 41 'possible,' 2 'not pesticide-related,' and 2 'no symptoms reported.' Most cases experienced mild (N=34) or moderate (N=19) symptoms.

Analysis of the 20 closed incident investigations indicate that most pesticide exposures occurred in a residential location (N=13), and the majority of exposure incidents resulted from the drift of an aerial application of a pesticide (N=11). Ten incidents involved exposure to an insecticide, and 7 incidents involved herbicide exposure.

Louisiana's Registry of Pesticide Hypersensitive Individuals

In 1989, the Louisiana Department of Agriculture and Forestry and SEET established the Registry of Pesticide Hypersensitive Individuals. The registry's purpose is to enable hypersensitive individuals to receive prior notification of pesticide applications in the vicinity of their home. With prior notification, individuals can take necessary precautions to protect themselves from inadvertent pesticide exposure. There is no charge for inclusion on the registry although a physician must certify that the registrant is hypersensitive to pesticides.

The registry, which is updated annually, is provided to all licensed applicators and pest control operators (PCOs). Applicators and PCOs are requested to notify registrants prior to making a pesticide application to a property within one hundred feet or adjacent to the registrant's property. Notification by applicators and PCOs is voluntary, and there is no penalty for non-compliance.

In 1999, SEET conducted a telephone survey of all registrants to evaluate their satisfaction with the registry. Of the 62 households on the registry, 37 (60%) participated in the survey. Results indicate that 62% of the surveyed registrants live in a rural area of which 49% live on a farm. Forty-one percent of the households were notified every time there was a pesticide application within 100 feet of their property, 32% were sometimes notified, and 27% were never notified.

Overall, 62% of the surveyed registrants were satisfied with the registry, although 76% of the registrants believed that 100 feet was not a protective enough distance. All surveyed registrants

stated that they would be willing to pay a small fee in exchange for mandatory notification by applicators.

Disease Cluster Response

SEET investigates citizens' reports of environmentally related disease clusters (such as cancer, and reproductive, neurological, and respiratory diseases) that may require regulatory or health interventions.

Coteau Childhood Leukemia

Public concern about childhood leukemia in the community of Coteau (Iberia Parish) was brought to the attention of SEET in May 1996. SEET has assessed the occurrence of childhood leukemia in the area of Coteau with the assistance of the LOUISIANA TUMOR REGISTRY. It has been determined that the incidence of childhood leukemia in Coteau is unusual, both spatially and temporally.

SEET began a population-based case-control study of childhood leukemia in a four-parish area consisting of Iberia, Lafayette, St. Martin, and Vermilion parishes. These four parishes were selected as the study area to provide a larger number of cases and to increase the probability of including children from neighboring areas who may have spent time in Coteau even though they did not live there.

A case in the OPH study is defined as a child who was diagnosed with leukemia between January 1, 1983 and December 31, 1997 while living in Lafayette, Iberia, St. Martin, or Vermilion Parish. The child must have been born in one of the four parishes and must have been less than 15 years old at the time the leukemia was diagnosed. Information on children with leukemia has been obtained from the LOUISIANA TUMOR REGISTRY and the ACADIANA TUMOR REGISTRY. A total of 31 known cases is being investigated by SEET in the four-parish area. The parents of all 31 cases and respective controls have been interviewed. SEET is in the process of evaluating interview responses in order to prepare a final report.

A detailed survey instrument (questionnaire) was developed by SEET to identify risk factors associated with childhood leukemia. A qualified interviewer was hired from the Lafayette area to conduct all interviews with the parents of cases and controls.

Cancer Mortality Trend Analysis

There has been concern for some time about whether industries along the Mississippi River between Baton Rouge and the Gulf of Mexico contribute to elevated lung cancer rates in the area. The LOUISIANA OFFICE OF PUBLIC HEALTH'S SECTION OF ENVIRONMENTAL EPIDEMIOLOGY AND TOXICOLOGY (SEET) is completing a trend analysis of the Lower Mississippi River corridor to provide more accurate information to address this concern. Cancer rates, demographic factors, and industrial development have been tracked over 30 years, from the 1960s to the 1990s.

Cancer Mortality

Preliminary analysis of the data reveals that most of the average annual age-adjusted mortality rates (1960-1993) are nearly equal for the urban portion of the study area and the study area as a whole (the Lower Mississippi River corridor). This is expected since the urban area had most of the population base (80%) of the entire eleven-parish region. There were no statistically significant excesses or deficits of cancer deaths in the urban area as compared with the entire study area. However, lung cancer death rates for African-American males and Caucasian females in the urban area were higher than, but not significantly different from, the entire region. Most of the average annual age-adjusted mortality rates were nearly equal for the rural region when compared to the entire study area (1960-1993). Also in the rural region, stomach cancer

was significantly elevated in African-American males and lung cancer death rates for Caucasian males were higher than, but not significantly different from, the entire region.

Demographics

According to information obtained for the census years 1960, 1970, 1980, and 1990, more than 80% of the population in the study area has lived in the area since the 1960s, and more than 60% of that population is Caucasian. The African-American population in the study area has declined in rural areas and grown in urban areas. Median family income in the study area increased from $4,720 in 1960 to $29,512 in 1990. Since 1970, median family income increased by more than $10,000.

Industrial Mapping

The industries in the Lower Mississippi River corridor are distributed into twelve clusters (three or more industries in each cluster) spread among seven of the eleven parishes. In the early 1950s there were 15 industries in the corridor; by 1994, there were 92. Manufacturing industries in the area with over ten employees were categorized according to the potential cancer risk they posed. Between 1988 and 1994, the number of industries emitting known human carcinogens dropped from 42 to 36.

Mercury Blood Screening

In 1998, 313 individuals from selected parishes in Louisiana participated in a blood mercury screening. Ninety-eight percent of the study participants were within an expected range of mercury blood levels. The remaining two percent of participants exhibited slightly elevated mercury levels and was advised to decrease fish consumption.

The outcome of this investigation is a health risk assessment being presently conducted in partnership with the Tulane University School of Public Health and Tropical Medicine. This study will assess the exposure status of subsistence fishermen and their families as it relates to blood mercury levels.

N. VITAL STATISTICS

Vital statistics data provide a body of information that serves as the foundation for monitoring the health of Louisiana's residents. These data are collected via birth, death, fetal death, abortion, marriage, and divorce certificates. Collection and processing of vital statistics information is the responsibility of the VITAL RECORDS REGISTRY, OFFICE OF PUBLIC HEALTH.

A large number of health status indicators rely on vital statistics data. These indicators include infant death rates, numbers of low birthweight infants, percentage of mothers lacking adequate prenatal care, teen birth rates, homicide and suicide rates, rates of death from AIDS and motor vehicle injuries, and many others. Vital statistics data are used in both the public and the private sectors to identify health needs in the population and to target effective health interventions. Vital statistics health status indicators also are an important component in measuring achievement of CENTERS FOR DISEASE CONTROL Healthy People 2000 and 2010 objectives.

The role of the STATE CENTER FOR HEALTH STATISTICS is to analyze vital statistics data and distribute findings to government programs, community organizations, universities, and interested members of the general public. The Center accomplishes this through publication of

the annual *Louisiana Vital Statistics Report*, and through response to ad hoc requests for data and information. The Center also is responsible for compilation of information from DEPARTMENT OF HEALTH AND HOSPITALS programs to create the legislatively mandated annual *Louisiana Health Report Card*.

1999 Statistics
Please refer to "Chapter I: Population and Vital Statistics".

Reports
Reports and data tables published by the STATE CENTER FOR HEALTH STATISTICS, including the annual *Louisiana Health Report Card, Louisiana Vital Statistics Report,* and the *Louisiana Vital Statistics Overview*, can be viewed and downloaded by the public at our Internet web site (please refer to "Contact Information" at the end of this publication). The STATE CENTER FOR HEALTH STATISTICS also maintains databases of births, deaths, fetal deaths, abortions, marriages, and divorces, which it uses to respond to data requests from communities, agencies, and the general public through generation of ad hoc reports and analyses.

O. STATE HEALTH CARE DATA CLEARINGHOUSE

Act 622 the 1997 Regular Legislative Session defined the STATE HEALTH CARE DATA CLEARINGHOUSE as the agency responsible for the collection of health care and health industry-related data. Act 622 charges the STATE HEALTH CARE DATA CLEARINGHOUSE with responsibility for creating population-based health care data registries that will offer Louisiana and its health care providers their first opportunity to plan and operate systematic intervention strategies that address the antecedents of death.

In prioritizing the mandates of the HEALTH CARE DATA CLEARINGHOUSE, the OFFICE OF PUBLIC HEALTH considered the various health information data streams already in existence and the data collection experiences of some 36 other states, and determined that Louisiana would benefit most by focusing initial data collection efforts on hospital inpatient discharge data. In addition to the inpatient discharge database, the STATE HEALTH CARE DATA CLEARINGHOUSE is also planning to work with hospitals and other facilities across the state to develop a statewide hospital emergency room data system and other data sets to provide an even more complete picture of Louisiana health, and to address the urgent concerns of the increasing threat of bioterrorism.

Louisiana Hospital Inpatient Discharge Database (LAHIDD)

Many areas in Louisiana are experiencing rising health care costs and shortages of health professionals, making it essential that patients, health care professionals, hospitals, and third party payers have information needed to determine appropriate and efficient use of health services, and accurate evaluation of needs and usage. This requires an understanding of patterns and trends in the availability, utilization, and costs of health care services, and the underlying patterns of disease that necessitate these services. The Louisiana Hospital Inpatient Discharge Database (LAHIDD) holds the information base needed to make these determinations.

The LAHIDD is a data registry containing inpatient discharge data submitted to the OFFICE OF PUBLIC HEALTH by hospitals in Louisiana. The registry contains discharge data dating back to January 1, 1998. As the state's only comprehensive, population-based repository of hospital inpatient data, LAHIDD contains information needed to measure and evaluate illness and cost

trends in the state, i.e., information on diagnoses, procedures performed, and the costs of those procedures. Until the creation of this database, this information could be estimated only for selected illnesses through surveys that included only subsets of the state's population.

For the most part, the data sent by hospitals to the registry are a natural by-product of hospital billing activity and are already widely available in a reasonably standard electronic format. The collection of these data place the smallest additional burden on the state's medical care providers, while speaking directly to the legislatively recognized need to understand "patterns and trends in the availability, use, and charges for medical services."

Receipt of the tenth series of data submissions from hospitals (discharges occurring from July to September 2000) currently is in progress. One hundred seventy-nine licensed hospitals housing 25,706 beds participate in submission of data to the STATE HEALTH CARE DATA CLEARINGHOUSE. In the most recently concluded submission, which contained discharges occurring from April through June 2000, data submissions were received for 73% of the state's hospital beds, while 26% of the beds requested extensions and 1% of the beds invoked general waivers that exclude them from submitting data.

Activities to date

Prior to fall 2000, LAHIDD activities focused on creating the organizational infrastructure needed to assure two-way communication and an easy flow of data from hospitals to the STATE HEALTH CARE DATA CLEARINGHOUSE. These activities include:

- providing information to hospitals regarding regulations and submittal procedures
- receiving scheduled data submissions.
- performing preliminary data error checks
- notifying hospitals when excessive numbers of data errors were found in these preliminary checks

In the past six months much progress has been made in the development of the technologic infrastructure needed to house the database and facilitate access to the data. This progress includes:

- collaborating with the OFFICE OF PUBLIC HEALTH MANAGEMENT INFORMATION SYSTEMS SECTION to
  - complete the software structure needed to construct the LAHIDD database
  - load the data into the database structure. The database currently contains over 1,500,000 discharge records dating from January 1998 through June 2000
  - Identify software tools needed to (1) improve the speed and accuracy of data loading and (2) enable de-duplication and logical error checking - both of which are required before data are available for analysis
- collaborating with the OFFICE OF PUBLIC HEALTH MANAGEMENT INFORMATION SYSTEMS SECTION (for technical expertise) and CARDIOVASCULAR HEALTH CORE CAPACITY PROGRAM (for financing) to purchase
  - a hardware platform with the capacity to hold and backup the LAHIDD database
  - a software tool that will enable Internet-based data reporting

- developing the following software tools, which will be distributed to hospitals in Spring 2001:
  - a data entry tool to be used by hospitals that currently lack the capability to submit data electronically
  - a data quality assurance tool that will enable hospitals to perform preliminary data error checks before submitting data to LAHIDD
- determining the content and format of hard copy and Internet-based reports to be distributed to submitting hospitals
- establishing data access procedures that will assure maintenance of legislatively-mandated confidentiality restrictions.